VMware Application Catalog ™

Trusted Image Library for Enterprise

DEVELOPER CONVENIENCE

- Rapidly bring apps to production using pre-packaged app building blocks that are verifiably tested for use in prod environments
- Discover, experiment, prototype and iterate with self-service trusted software components

OPERATOR CONFIDENCE

- Rest assured with a full bill of material for every delivered artifact including vital compliance and audit details such as history of updates to each image, logs of functional tests, results of security scans, links to upstream source of binaries and libraries
- Choose from a custom golden base image or a VMware-provided image
- Eliminate dependency on manual image packaging and maintaining images built by diff teams within the organization

LEARN MORE

- Visit our product webpage at *https://tanzu.vmware.com/application-catalog*
- See all the apps supported today by VMware Application Catalog at *https://app-catalog.vmware.com/catalog*
- Review technical product Documentation at *https://docs.vmware.com/en/VMware-Application-Catalog/index.html*

Open-source software is challenging to use in production

Software development organizations want the freedom to use a wide range of technologies. However, there is a disconnect between developers who want the flexibility to choose the technology for their specific need and operators who must enforce IT policies on all technologies utilized in their organization. This gap gets exacerbated in the case of open-source software – free availability and widespread adoption of pre-packaged open-source software means new opportunities for malicious actors to publish images containing vulnerabilities. In addition to security risks, un-audited open-source software may also pose technical and legal risks.

Allowing for the use of non-governed technology is risky for operators because there is no way to know for sure what is in those containers or virtual machines and running them in production would mean risking their user data on a third party promise of security and quality.

To mitigate the risk of critical application outage or security breach, enterprises typically require full transparency and auditability for open-source code for every single application running in their production environment the only way to meet this demand is for developers/IT teams to maintain these technologies manually, taking significant time away from their core functional of creating new business value through innovation. Enterprise-wide, this leads to multiple developer teams maintaining the same artifacts concurrently, manually. Operators, managers, and compliance teams feel overwhelmed trying to manage all this software

The solution that meets the need of developers and operators

VMware Application Catalog ™ is a customizable selection of trusted, pre-packaged open-source application components that are continuously maintained and verifiably tested for use in production environments. These images are built on custom base operating system images and deposited into a private repository. Every artifact has a complete set of metadata that proves the trustworthiness of the software within, easily accessible through a centralized UI or CLI.

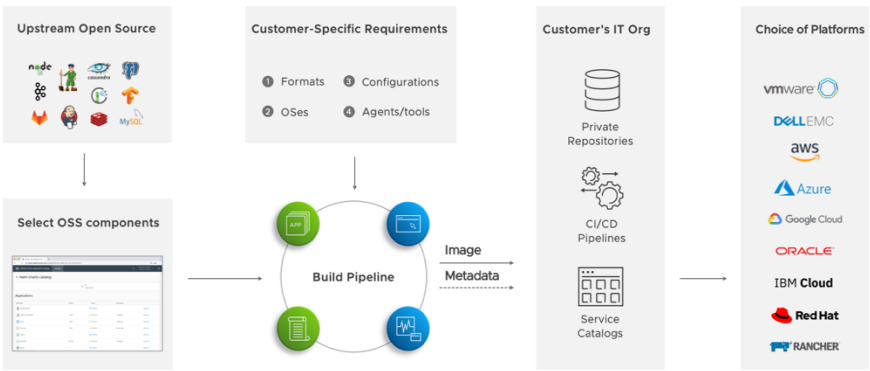

FIGURE 1: VMware Application Catalog overview

EXAMPLE APPS SUPPORTED TODAY

LANGUAGE RUNTIMES

- Nodejs
- Python
- Ruby
- Java

DATABASES

- MySQL
- PostgreSQL
- MariaDB
- MongoDB

APP COMPONENTS

- Kafka
- RabbitMQ
- NATS
- TensorFlow
- ElasticSearch
- FluentD

DEVELOPER TOOLING

- Harbor
- Artifactory
- Jenkins
- Git
- Redmine
- Zookeeper
- Prometheus

BUSINESS APPLICATIONS

- Wordpress
- Drupal
- Magento
- Moodle
- Odoo

How it Works

Choose your software - Through a self-onboarding user interface, the customer selects desired open-source application components that they'd like to use in production: from components like runtimes and databases to turnkey apps like content management and developer productivity tools

Specify your operating system - VMware Application Catalog supports custom base operating system images or golden images with customer-specifications, agents, and settings. You can upload your standard OS image and VAC will build and test images on top of it. Alternatively, you can also choose a base OS image maintained with best practices by VMware

Deploy with Confidence – VMware Application Catalog's image build pipeline creates the desired artifact and deposits the artifact along with the software bill of materials in a customer-specified private registry. Operators can then access metadata and artifacts and make them available to their developers for use. VMware Application Catalog also continuously updates the chosen library of images with the latest security patches, app or component version updates and base operating system changes. This way, the customer always deploys the most performant and secure stack. It's also easy to audit what's in the stack, code provenance, license, test results and security cans for the open-source libraries and binaries in the catalog.

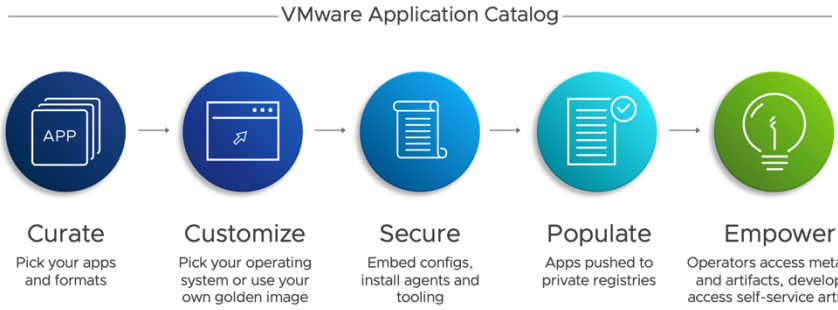

FIGURE 2: Steps to building a curated image catalog for enterprise use

VMware Application Catalog gives developers the productivity and agility of pre-packaged apps and components, while enabling operators to meet the stringent security and transparency requirements of enterprise IT.

Product Features

- Rich library of trusted building blocks such as runtimes, databases and other application components packaged following best practices including open-source content delivered as containers, Helm charts and virtual machine formats
- Continuous monitoring of upstream code changes that automatically trigger image rebuild, testing and artifacts getting pushed to the registry
- Metadata and bill of material for each continuously updated package that includes:
  - Provenance of open-source code
  - Source code reference for binaries and libraries
  - Build-time CVE scan reports for container images using Trivy
  - Build-time Antivirus scans for container images using ClamAV
  - Logs showing successful container tests in multiple K8 environments
- All metadata and referenced packages signed and ready for verification
- Choice of operating system for customers to pick from a customized base golden image or a base image maintained by VMware following best practices
- Choice of Registry where VAC can directly push updated components into a customer-chosen registry, or a VMware-chosen registry
- Self-Service onboarding UI using which operators can request artifacts, provide their registry, and base OS image (if needed) and access a curated enterprise catalog along with metadata to make it available to their developers, with just a few clicks

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